## ABSTRACT OF THE INVENTION

Endogenous precursor cells are manipulated/modified in situ to induce the cells, by the application one or more growth factors or similar compounds, to proliferate, differentiate and migrate within the CNS so as to replace lost or non-functional cells.

The precursor cells are also altered *in situ* (in vivo) so as to secrete a compound which alters the function of other differentiated CNS cells. The endogenous precursor cells can also be treated with one or more growth factors *in situ* in order to increase the yield of stem cells that can be isolated from the adult CNS and proliferated *in vitro*.